

What is claimed is:

1. A method to determine when to send a signal,
comprising:

5 receiving a set of durations, the set of durations
including at least two time durations, each duration
corresponding to a respective action signal to be sent
at the end of the respective duration;

10 determining an expiration time corresponding to
each duration;

selecting the expiration time that is first to
occur to provide a selected expiration time;

15 sending the action signal corresponding to the
selected expiration time when the selected expiration
time occurs.

2. The method of claim 1, wherein determining an
expiration time corresponding to each duration includes
determining a received time for each duration.

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3. The method of claim 2, wherein determining an
expiration time corresponding to each duration further
includes adding each duration to its corresponding
received time.

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4. The method of claim 1, wherein selecting the expiration time that is first to occur includes comparing the expiration times to determine which of the expiration times is first to occur.

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5. The method of claim 1, further including determining when the selected expiration time occurs by setting a clock to send a signal at the expiration time.

10 6. A method to determine when to send a signal, comprising:

determining a first expiration time and a second expiration time;

comparing the first expiration time to the second
15 expiration time;

selecting the first expiration time if the first expiration time is less than the second expiration time, and selecting the second expiration time if the second expiration time is less than the first expiration time,
20 and selecting both the first and second expiration times if the first expiration time is approximately equal to the second expiration time;

if the first expiration time is not approximately equal to the second expiration time, setting a signal
25 send time approximately equal to the selected one of the

first expiration time and the second expiration time,
and if the first expiration time is approximately equal
to the second expiration time, setting a signal send
time approximately equal to the first and second
5 expiration time;
determining a start time;
determining a time difference between the signal
send time and the start time;
setting a time period approximately equal to the
10 time difference;
setting a timer to send a call back signal at the
end of the time period;
starting the timer at the start time; and
once the timer sends the call back signal, sending
15 the first action signal if the first expiration time was
selected, and sending the second action signal if the
second expiration time was selected.

7. The method of claim 6, further comprising:
20 receiving a first time duration corresponding to a
first action signal; and
determining a first received time corresponding to
a current time indicated by a clock when the first time
duration was received.

8. The method of claim 7, wherein the first expiration time is approximately equal to the first received time plus the first time duration.

5 9. The method of claim 6, further comprising, once the timer sends the call back signal:

selecting a next expiration time, the next expiration time corresponding to the first expiration time if the first expiration time was not previously selected, and the next expiration time corresponding to the second expiration time if the second expiration time was not previously selected;

determining a new start time;

15 determining a new time difference between the next expiration time and the new start time;

setting a new time period approximately equal to the new time difference;

setting the timer to send a new call back signal at the end of the new time period; and

20 starting the timer at the new start time.

10. The method of claim 6, further comprising:

25 checking a first indicator upon sending the first action signal, the first indicator corresponding to whether the first action signal should be sent again;

and

determining a third expiration time if the first indicator indicates the first action signal should be sent again.

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11. A method to determine when to send a signal, comprising:

receiving a set of durations, the set of durations including at least two time durations, each duration 10 corresponding to a respective action signal to be sent at the end of the respective duration;

determining a received time for each duration;

determining an expiration time corresponding to each duration to provide a set of expiration times, each 15 expiration time being approximately equal to the corresponding received time plus the corresponding time duration;

comparing the expiration times to determine which of the expiration times is first to occur;

20 selecting the expiration time that is first to occur to provide a selected expiration time;

determining a start time;

determining a time difference between the selected expiration time and the start time;

setting a time period approximately equal to the
time difference;

setting a timer to send a call back signal at the
end of the time period;

5 starting the timer at the start time; and
once the timer sends the call back signal, sending
the action signal that corresponds to the selected
expiration time.

10 12. The method of claim 11, further comprising;
selecting from the set of expiration times the
expiration time that is next to occur;
determining a new start time;
determining a new time difference between the
15 selected expiration time that is next to occur and the
start time;
setting a new time period approximately equal to
the new time difference;
starting the timer at the new start time; and
20 once the timer sends the call back signal, sending
the action signal that corresponds to the selected
expiration time that is next to occur.

13. The method of claim 11, further comprising adding
25 to the set of expiration times an expiration time

approximately equal to the time the action signal was sent plus the corresponding duration.

14. The method of claim 11, further comprising:

5 checking an indicator corresponding to the sent action signal to determine whether the indicator is turned on or turned off;

10 if the indicator is turned on, determining an expiration time approximately equal to the time the action signal was sent plus the corresponding duration.

15. A method to determine when to send a signal, comprising:

15 receiving first timing information corresponding to a first action signal, the first timing information including a first duration and a first flag;

20 if the first flag indicates an active status, determining a first expiration time, and including the first expiration time in a set of expiration times to be considered;

receiving second timing information corresponding to a second action signal, the second timing information including a second duration and a second flag;

if the second flag indicates an active status,
determining a second expiration time and including the
second expiration time in the set of expiration times;
selecting an expiration time in the set that will
5 occur first, to provide a selected expiration time;
determining a start time;
determining a time difference between the selected
expiration time and the start time;
setting a time period approximately equal to the
10 time difference;
setting a timer to send a call back signal at the
end of the time period;
starting the timer at the start time; and
once the timer sends the call back signal, sending
15 an action signal that corresponds to the selected
expiration time.

16. The method of claim 15, wherein at least one of the
flags corresponding to the selected expiration time is
20 set to an inactive status once the corresponding action
signal is sent.

17. The method of claim 15, wherein the first timing
information further includes a first indicator, and the
25 method further comprises:

upon sending the first action signal, determining whether the indicator is turned on or turned off;

determining whether the first flag indicates an active status;

5 if the first flag indicates an active status and the indicator is turned on, determining a third expiration time corresponding to the first action signal and including the third expiration time in the set of expiration times;

10 selecting from the set an expiration time that will next occur to provide a new selected expiration time;

determining a new start time;

15 setting the time period approximately equal to a difference between the new selected expiration time and the new start time;

starting the timer at the new start time; and

once the timer sends the call back signal, sending action signals that correspond to the new selected expiration time.

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18. The method of claim 15, wherein the first timing information includes a first indicator, and the method further comprises:

upon sending the first action signal, determining whether the first indicator is turned on or turned off; and

if the first indicator is turned off, setting the 5 first flag to an inactive status.

19. An article of manufacture comprising a computer usable medium having computer readable program code instructions embodied therein to cause a computer to determine when to send a signal, the instructions 10 having:

a computer readable program code module to receive a set of durations, the set of durations including at least two time durations, each duration corresponding to 15 a respective action signal to be sent at the end of the respective duration;

a computer readable program code module to determine an expiration time corresponding to each duration;

20 a computer readable program code module to select the expiration time that is first to occur to provide a selected expiration time;

a computer readable program code module to send the action signal corresponding to the selected expiration 25 time when the selected expiration time occurs.

20. The method of claim 19, wherein the instructions further have a computer readable program code module to determine a received time for each duration.

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21. The method of claim 20, wherein the instructions further have a computer readable program code module to add each duration to its corresponding received time.

10 22. The method of claim 19, wherein the instructions further have a computer readable program code module to compare the expiration times to determine which of the expiration times is first to occur.

15 23. The method of claim 19, wherein the instructions further have a computer readable program code module to set a clock to send a signal at the expiration time.

24. An article of manufacture comprising a computer
20 usable medium having computer readable program code
instructions embodied therein to cause a computer to
determine when to send a signal, the instructions
having:

25 a computer readable program code module to
 determine a first expiration time;

a computer readable program code module to determine a second expiration time;

a computer readable program code module to compare the first expiration time to the second expiration time;

5 a computer readable program code module to select the first expiration time if the first expiration time is less than the second expiration time, and to select the second expiration time if the second expiration time is less than the first expiration time, and to select
10 both the first and second expiration times if the first expiration time is approximately equal to the second expiration time;

a computer readable program code module to set a signal send time approximately equal to the selected one
15 of the first expiration time and the second expiration time if the first expiration time is not approximately equal to the second expiration time, and to set a signal send time approximately equal to the first and second expiration time if the first expiration time is
20 approximately equal to the second expiration time;

a computer readable program code module to determine a start time corresponding to the current time indicated by the clock;

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a computer readable program code module to determine a time difference between the signal send time and the start time;

5 a computer readable program code module to set a time period of a timer approximately equal to the time difference so a call back signal is sent at the end of the time period;

a computer readable program code module to start the timer at the start time; and

10 a computer readable program code module to send, once the timer sends the call back signal, the first action signal if the first expiration time was selected, and to send the second action signal if the second expiration time was selected.

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25. The article of manufacture of claim 24, wherein the instructions further have:

a computer readable program code module to select a next expiration time once the timer sends the call back signal, the next expiration time corresponding to the first expiration time if the first expiration time was not previously selected, and the next expiration time corresponding to the second expiration time if the second expiration time was not previously selected;

a computer readable program code module to
determine a new start time;

5 a computer readable program code module to
determine a new time difference between the next
expiration time and the new start time;

a computer readable program code module to set a
new time period approximately equal to the new time
difference; and

10 a computer readable program code module to start
the timer at the new start time.

26. The article of manufacture of claim 24, wherein the
instructions further have:

15 a computer readable program code module to check a
first indicator upon sending the first action signal,
the first indicator corresponding to whether the first
action signal should be sent again;

20 a computer readable program code module to
determine a third expiration time if the first indicator
indicates the first action signal should be sent again.

27. An article of manufacture comprising a computer
usable medium having computer readable program code
instructions embodied therein to cause a computer to

determine when to send a signal, the instructions having:

- 1 a computer readable program code module to receive a set of durations, the set of durations including at least two time durations, each duration corresponding to a respective action signal to be sent at the end of the respective duration;
- 2 a computer readable program code module to determine an expiration time corresponding to each duration to provide a set of expiration times;
- 3 a computer readable program code module to compare the expiration times to determine which of the expiration times is first to occur;
- 4 a computer readable program code module to select the expiration time that is first to occur to provide a selected expiration time;
- 5 a computer readable program code module to determine a start time;
- 6 a computer readable program code module to determine a time difference between the selected expiration time and the start time;
- 7 a computer readable program code module to set a time period of a timer approximately equal to the time difference, the timer being capable of sending a call back signal at the end of the time period;

a computer readable program code module to start
the timer at the start time; and

a computer readable program code module to send,
once the timer sends the call back signal, the action
5 signal corresponding to the selected expiration time.

28. The article of manufacture of claim 27, wherein the
instructions further have:

10 a computer readable program code module to select
from the set of expiration times the expiration time
that is next to occur;

a computer readable program code module to
determine a new start time;

15 a computer readable program code module to
determine a new time difference between the selected
expiration time that is next to occur and the start
time;

20 a computer readable program code module to set the
time period approximately equal to the new time
difference;

a computer readable program code module to start
the timer at the new start time; and

a computer readable program code module to send,
once the timer sends the call back signal, the action

signal corresponding to the selected expiration time
that is next to occur.

29. The article of manufacture of claim 27, wherein
5 the instructions further have a computer readable
program code module to add to the set of expiration
times an expiration time approximately equal to the time
the action signal was sent plus the corresponding
duration.

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30. The article of manufacture of claim 27, wherein
the instructions further have:
a computer readable program code module to check an
indicator corresponding to the sent action signal to
15 determine whether the indicator is turned on or turned
off;

a computer readable program code module to add to
the set of expiration times an expiration time
approximately equal to the time the action signal was
20 sent plus the corresponding duration, if the indicator
is turned on.

31. An article of manufacture comprising a computer
usable medium having computer readable program code
25 instructions embodied therein to cause a computer to

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determine when to send a signal, the instructions having:

a computer readable program code module to receive first timing information corresponding to a first action
5 signal, the first timing information including a first duration and a first flag;

a computer readable program code module to determine a first expiration time, if the first flag indicates an active status, and to include the first
10 expiration time in a set of expiration times to be considered;

a computer readable program code module to receive second timing information corresponding to a second action signal, the second timing information including a
15 second duration and a second flag;

a computer readable program code module to determine a second expiration time, if the second flag indicates an active status, and to include the second expiration time in the set of expiration times;

20 a computer readable program code module to select an expiration time in the set that will occur first, to provide a selected expiration time;

a computer readable program code module to determine a start time;

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a computer readable program code module to set a time period of a timer approximately equal to a difference between the selected expiration time and the start time, the timer being capable of sending a call
5 back signal at the end of the time period;

a computer readable program code module to start the timer at the start time; and

10 a computer readable program code module to send, once the timer sends the call back signal, action signals corresponding to the selected expiration time.

32. The article of manufacture of claim 31, wherein the instructions further have a computer readable program code module to set at least one of the flags
15 corresponding to the selected expiration time to an inactive status once the corresponding action signal is sent.

33. The article of manufacture of claim 31, wherein the first timing information further includes a first indicator, and the instructions further have:

a computer readable program code module to determine whether the indicator is turned on or turned off;

a computer readable program code module to determine whether the first flag indicates an active status;

5 a computer readable program code module to determine a third expiration time corresponding to the first action signal, if the first flag indicates an active status and the indicator is turned on, and to include the third expiration time in the set of expiration times;

10 a computer readable program code module to select an expiration time in the set that will next occur to provide a new expiration time;

 a computer readable program code module to determine a new start time;

15 a computer readable program code module to set a new time period approximately equal to a difference between the new expiration time and the new start time;

 a computer readable program code module to start the timer at the new start time; and

20 a computer readable program code module to send, once the timer sends the call back signal, action signals corresponding to the new expiration time.

34. The article of manufacture of claim 31, wherein the first timing information further includes a first indicator, and the instructions further have:

a computer readable program code module to

5 determine whether the first indicator is turned on or
turned off; and

a computer readable program code module to set the first flag to an inactive status if the first indicator is turned off.